

REMARKS

Favorable reconsideration of the subject application is respectfully requested in light of the above amendments and the following remarks. Claims 6-11 are pending. Claims 1-5 have been canceled. Support for the amendments may be found throughout the instant specification. No new matter has been added to the application. The amendments are not to be construed as acquiescence with regard to the Action's objections or rejections and are made without prejudice to prosecution of any subject matter removed or modified by amendment in a related divisional, continuation, or continuation-in-part application.

**Objection to the Specification**

Applicants thank the Examiner for noting the informalities of the specification that formed the basis of this objection. Applicants have carefully amended the specification in compliance with 37 C.F.R. § 1.121(b) in order to correct the typographical errors, as requested. Thus, Applicants submit this objection has been overcome and respectfully request the objection be withdrawn.

**Claim Rejection Under 35 U.S.C. § 112, First Paragraph**

Claims 6-11 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In particular, the action alleges the term "at least" in claims 6 and 7 allow for peptides having any sequence or length, and further alleges a lack of support for structural features that are necessary for peptide analogue binding to MHC or treatment of multiple sclerosis.

Applicants traverse this basis for rejection and submit one of skill in the art, upon reading the instant specification, would appreciate Applicants were in possession of the claimed invention at the time the application was filed.

Applicants submit the Federal Circuit has held the 35 U.S.C. § 112, first paragraph written description requirement is satisfied when functional language is correlated

with structure, formula, chemical name or physical properties of claimed DNA. *Univ. of Rochester v. G.D. Searle & Co., Inc.*, 358 F.3d 916, 926 (Fed. Cir. 2004) (emphasis added).

Applicants disagree with the Action's allegation that the specification lacks description of structural features of the claimed invention. Applicants submit the specification discloses relevant, identifying characteristics as well as a number of working examples. Indeed, in addition to actual nucleotide and amino acid sequences provided in the Sequence Listing, various examples of sequences with amino acid substitutions are provided in the specification, in particular in Examples 2 and 4-11.

Applicants note Example 4 describes the ability of MBP peptides and peptide analogues to bind MHC. As evidenced in Figure 2, the native peptide effectively competes with itself for binding to antigen presenting cells, while the alanine-substitution analogue (91K>A) competes nearly as effectively. Furthermore, Example 5 discloses an antigen-specific lymph node cell proliferation assay in which the ability of MBP peptide, and peptide analogues, to stimulate lymph node cells was analyzed. As demonstrated in Figure 4, lymph node cells reactive to MBP (87-99) were effectively stimulated with the immunizing peptide, while lymph node cells failed to respond as well to an unrelated peptide, to media alone, or the peptide analogues (91 K>A) and (91 K> k). Thus, Applicants submit the specification adequately supports the claims, as evidenced by the working examples described here and including the entire specification.

Furthermore, it has been well established that where a patent discloses means by which a novel and successful result is secured, it is immaterial whether the inventor understands or correctly states the theory or scientific principles of the mechanism which produces the new result. *In re Modine*, 19 C.C.P.A. 1058, 57 F.2d 355, 13 U.S.P.Q. 88 (CCPA 1932). Applicants submit that ascertaining the exact mechanisms for treatment of *any* disease is complex, but the absence of defining such mechanisms in the specification does not preclude patentability.

Accordingly, Applicants submit one of skill in the art, upon reading the instant specification, would appreciate Applicants were in possession of the entire claimed invention at the time the application was filed.

Nevertheless, solely to expedite prosecution of the present application, and without acquiescing to any rejection, Applicants submit claims 6 and 7 have been amended for clarification. Therefore, Applicants submit this rejection has been obviated and respectfully request the rejection be withdrawn.

**Obviousness Type Double Patenting Rejection**

Claim 6 stands rejected under the judicially created doctrine of obviousness-type double patenting as allegedly not patentable over U.S. Patent No. 6,740,638. Claims 6-11 stand rejected under the judicially created doctrine of obviousness type double patenting as not patentable over U.S. Patent No. 6,489,299 and U.S. Patent No. 6,369,033. Applicants maintain the instant invention is patentably distinct from the cited U.S. patents. Nonetheless, solely to expedite prosecution of the instant specification, Applicants herein enclose an appropriate Terminal Disclaimer with this Response. As such, Applicants respectfully request this rejection be withdrawn.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

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Terminal Disclaimer

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